

Appendix B

Army Airspace Command and Control Tasks

The commander must develop and implement the Army airspace command and control (A2C2) system for his assigned area of responsibility. To assist him in this effort, the commander utilizes his staff. This appendix discusses the basic tasks the staff must complete and how they will manage A2C2 information.

BASIC STAFF TASKS

B-1. The basic staff tasks to be accomplished are the same for A2C2 as for any other function. These tasks are—

- Facilitate and monitor the accomplishment of command decisions.
- Provide timely and accurate information to the commander and subordinate units.
- Anticipate requirements and provide estimates of the situation.
- Determine various courses of action and recommend one course of action that will best accomplish the mission.
- Prepare plans and orders.
- Integrate and implement airspace control measures directed by the airspace control authority.

B-2. This appendix lists basic A2C2 staff tasks and identifies the element or cell responsible for each task. The tasks in Table B-1 are divided into sub-tasks. The A2C2 staff section chief (echelon-dependent) must ensure that the appropriate staff completes the tasks or provides the information required.

Table B-1. Staff Tasks for A2C2

	BCD	CORPS	DIV	BDE	BN
Task 1. Identify and resolve airspace conflicts.					
a. Current Operations.					
(1) Monitor operations of airspace users.		X	X	X	X
(2) Monitor intelligence reports.	X	X	X	X	X
(3) Disseminate immediate airspace requests (CAS, aeromedical evacuation, deep attacks, and UAV).	X	X	X	X	X
(4) Inform airspace users at each echelon of any communication loss affecting any airspace user.		X	X	X	X

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Table B-1. Staff Tasks for A2C2 (continued)

	BCD	CORPS	DIV	BDE	BN
Task 1. Identify and resolve airspace conflicts (continued).					
(5) Identify and correlate situations affecting airspace use for unscheduled events.		X	X	X	X
(6) Analyze airspace use to determine and resolve conflicts.	X	X	X	X	
(7) Recommend shifting or ending fires when affecting high priority aviation missions.		X	X	X	X
(8) Disseminate changes of control or restriction measures, weapons control status, and NBC information that affect airspace users.	X	X	X	X	X
(9) Review immediate air requests (Army) for conflicts with current operations.		X	X	X	X
b. Future Operations (more fully developed under Task 4). Analyze the OPLANs and OPORDs for possible conflicts among flight routes, control measures, artillery/ADA locations, and flight obstructions.					
(1) Determine the impact.	X	X	X	X	X
(2) Develop and recommend alternatives.	X	X	X	X	X
Task 2. Develop and maintain A2C2 overlay.					
a. Air Defense Artillery.					
(1) Unit locations.	X	X	X	X	X
(2) Weapons control status.	X	X	X	X	X
(3) Weapon system coverage for HIMAD primary and short-range air defense, as required.	X	X	X	X	
b. Fire Support.					
(1) Coordinating measures.	X	X	X	X	X
(2) Planned targets.	X	X	X	X	X
(3) Ongoing fires.	X	X	X	X	X
(4) Firing battery locations.	X	X	X	X	X
c. Aviation.					
(1) Battle positions (current and preplanned).	X	X	X	X	X
(2) Assembly areas and unit locations.	X	X	X	X	X
(3) Forward arming and refueling points.	X	X	X	X	
(4) Air routes.	X	X	X	X	
d. Air Traffic Service.					
(1) Airspace control measures and restrictions.	X	X	X	X	
(2) Friendly aircraft locations.	X	X	X	X	X
(3) Instrumented landing sites.	X	X	X		
(4) Navigational aids.		X	X		
e. Intelligence.					
(1) Contaminated areas.	X	X	X	X	X
(2) Massed enemy aircraft locations.		X	X	X	
(3) Areas affected by friendly electronic countermeasures.	X	X	X	X	X
(4) Flight obstructions.					
(5) Special electronic mission aircraft (current and preplanned).	X	X	X	X	
(6) UAV flight routes and launch and recovery sites.	X	X	X	X	X
Task 3. Request, maintain, and disseminate A2C2 measures or restrictions.					
a. Request.					
(1) Joint measures or restrictions.	X	X	X		
(2) Army-specific measures (only affects Army users below coordinating altitude).		X	X	X	X

Table B-1. Staff Tasks for A2C2 (continued)

	BCD	CORPS	DIV	BDE	BN
Task 3. Request, maintain, and disseminate A2C2 measures or restrictions (continued).					
b. Maintain.					
(1) Joint measures or restrictions.	X	X	X	X	
(2) Army-specific measures.		X	X	X	X
c. Disseminate.					
(1) Joint measures or restrictions.	X	X	X	X	
(2) Army-specific measures (overlay if possible).		X	X	X	X
d. Determine the Mission.					
(1) Receive higher headquarters' operation plan.	X	X	X	X	X
(2) Extract required information from the plan.					
(a) Task organization.	X	X	X	X	X
(b) Mission statement.	X	X	X	X	X
(c) Concept of operation.	X	X	X	X	X
(d) A2C2 annex (include information from ATO with special instructions or ACO).		X	X	X	
Task 4. Develop and coordinate A2C2 annex to operation plan.					
a. Identify the following:					
(1) Area for which the commander is responsible, to include:					
(a) Vertical limits.	X	X	X	X	X
(b) Left and right limits.	X	X	X	X	X
(c) Front and rear limits.	X	X	X	X	X
(2) The degree of authority which has been vested in the ground commander.	X	X	X	X	X
(3) The users of the airspace:					
(a) Army aviation.	X	X	X	X	X
(b) Other services/multinational forces.	X	X	X	X	X
(c) Fire support.	X	X	X	X	X
(d) Air defense.	X	X	X	X	X
(e) Air traffic services.		X	X		
(f) Intelligence.	X	X	X	X	X
(4) Requirements for the uses of the airspace:					
(a) Combat.		X	X	X	X
(b) Combat support.		X	X	X	X
(c) Combat service support.		X	X	X	X
(5) A2C2 control measures imposed by higher headquarters.		X	X	X	X
(6) The commander's guidance or concept.		X	X	X	X
b. Determine. From information internal to the command post, determine:					
(1) A2C2 priorities.	X	X	X	X	
(2) All airspace user requirements:		X	X	X	X
(a) Combat missions.		X	X	X	
(b) Combat support missions.		X	X	X	
(c) Combat service support missions.		X	X	X	
c. Prepare Staff Estimates.					
(1) Consolidate airspace use requirements for each course of action. Integrate requirements when possible. Identify conflicts.		X	X	X	X
(2) For each course of action, determine the requirements to resolve conflict (control measures), the difficulty of solving conflict, and how the requirements to solve conflict affect the concept of the operations.		X	X	X	X

Table B-1. Staff Tasks for A2C2 (continued)

	BCD	CORPS	DIV	BDE	BN
Task 4. Develop and coordinate A2C2 annex to operation plan (continued).					
(3) Recommend one specific course of action.		X	X	X	X
(4) Receive commander's decision and guidance for implementation.		X	X	X	X
d. Develop A2C2 Annex (see FM 5-0 for format). Include the following as a minimum:					
(1) Delineate the airspace subsector:					
(a) Upper limits.		X	X		
(b) Left and right limits.		X	X		
(c) Front and rear limits.		X	X		
(2) Describe authority to be exercised by each echelon concerning:					
(a) Army users.		X	X		
(b) Other service users.		X	X		
(c) Establishment of control measures.	X	X	X	X	X
(d) Positive and procedural control requirements.		X	X	X	X
(3) State the commander's airspace priorities.		X	X	X	X
(4) State the A2C2 mission.		X	X	X	X
(5) Explain the concept of operations and scheme of maneuver, to include A2C2 overlay.		X	X	X	X
(6) Write subunit paragraphs for each airspace user (fire support, other services and multinational forces, aviation, AD, and ATS). Discuss for each user:					
(a) Type of control required (positive or procedural, when, and where).		X	X	X	X
(b) A2C2 responsibilities not covered in SOP, such as peculiar information requirements, changes to responsibility for managing subsectors, weapon control orders and autonomous operation procedures (if changed), and times of operations and restrictions.		X	X	X	X
(7) Delineate information affecting more than two users:					
(a) All procedural A2C2 control measures and restrictions (include fire support); information not included in overlays.		X	X	X	X
(b) Flight rules.		X	X		
(c) Airspace control order issuing times.		X	X	X	
(d) High-use areas.		X	X	X	
(e) Friendly electronic warfare operations which affect airspace users.		X	X	X	X
(f) FARPs (active and preplanned).		X	X	X	
(g) Airfield locations and /operations.		X	X	X	
(h) NAVAIDs locations (active and preplanned time of operation).		X	X	X	
(8) Address service support and command and signal requirements.		X	X	X	X
e. Generate Airspace Control Measure Requests.					
Support the annex and forward for approval (theater requirements and means to accomplish this may vary).		X	X	X	X
ATS—air traffic service CAS—close air support NAVAID—navigational aid BDE—brigade DIV—division NBC—nuclear, biological, and chemical BN—battalion FARP—forward arming and refueling point CORPS also applies to echelons above corps.					
*In those commands where a BCD does not exist due to command and control arrangements and organization, the functions performed by the BCD are performed by the appropriate staff element.					

A2C2 INFORMATION MANAGEMENT

B-3. This section outlines the information required to operate an A2C2 system. The tables depict the primary players at the various headquarters organizations—ranging from the battlefield coordination detachment (BCD) to the maneuver battalion. The information required, the source of the information, the element of the staff using the information, and the expected uses of the information are shown. The information shown is not all-inclusive, nor is all required in every scenario; it is situation dependent.

BATTLEFIELD COORDINATION DETACHMENT

B-4. The A2C2 element representing the joint forces land component commander is located in the BCD. The A2C2 representatives work within the operations and plans division of the BCD.

Plans Division

B-5. The joint air operations center (JAOC) plans division has a BCD A2C2 representative. This representative needs information to interface in the Theater Air-Ground System airspace control center on all requests for control measures and restrictions. The appropriate corps A2C2 elements may provide this information:

- Forward line of own troops (FLOT) location and fire support coordination line (FSCL) locations.
- Friendly surface-to-air missile location and associated coverage.
- Air defense (AD) weapons control status.
- Significant planned indirect fires, particularly fires forward of the FSCL.
- Planned unmanned aerial vehicle (UAV) operations and launch sites.
- A2C2 priorities.
- Air tasking order (ATO) and airspace control order (ACO).
- Disposition of Army airfields and principal landing sites.

B-6. The BCD A2C2 representative, in coordination with the JAOC combat plans division, approves or disapproves notification for Army airspace requests, orders, and recommendations. These notifications are to the appropriate requesting corps A2C2 element (G3), corps fire support element (FSE), or control and reporting center (CRC). Additionally, the BCD A2C2 representative provides the current joint forces air component commander's airspace utilization priorities, control measures or restrictions, and all other elements of information necessary for the corps to maintain a complete A2C2 picture.

Operations Division

B-7. To interface with the JAOC combat operations division, the BCD A2C2 representative in the JAOC operations division needs information on—

- Requests for immediate changes to the current A2C2 plan (as established in the control plan, ATO, or ACO).
- Changes to the air defense artillery (ADA) high-to-medium-altitude air defense (HIMAD) locations.
- Changes to the weapons control status.

- Changes to FLOT and boundaries.
- Additions or changes to the significant planned indirect fires.
- Procedural changes to identification, friend or foe (IFF) or selective identification feature (SIF).
- ATO and ACO.
- UAV missions above the coordinating altitude.
- Locations of instrumented airfields.
- Movement of Army airfields.
- Reduction or suspension of Army air traffic management services.

B-8. Table B-2 depicts BCD vertical information requirements.

Table B-2. BCD Vertical Information Networking

Information Required		Received From	Action Officer	Action/Output
OPORD or OPLAN (Includes A2C2 Annex)	Corps	Corps A2C2 Element Corps G3	BCD A2C2 Element	P, C
	Requests	Corps A2C2 Element	BCD A2C2 Element	C, A
	Approvals	JAOC	BCD A2C2 Element	D Corps A2C2 Element ADA Brigade
FLOT		Corps A2C2 Element Corps G3	BCD A2C2 Element	P, C, D
A2C2 Priorities	Army	Corps A2C2 Element	BCD A2C2 Element	P, C, D JAOC Combat Ops
	Air Forces	Combat Ops	BCD A2C2 Element	P, C, D Corps A2C2 Element
ATO and ACO		JAOC Combat Ops	BCD A2C2 Element	P, C
ATO Issuing Times		Corps A2C2 Element	BCD A2C2 Element	P, C, D
IFF and SIF Procedures		CRC	BCD A2C2 Element	D Corps A2C2 Element JAOC and A2C2
Unscheduled, Large Formation Missions		JAOC Combat Ops	BCD A2C2 Element	C, D, Corps A2C2 Element ADA Brigade
NBC Contaminated Areas		Corps A2C2 Element	BCD A2C2 Element	P, C, D JAOC Combat Ops
Friendly ECM Activities (Affecting Avionics)		Corps A2C2 Element G2	BCD A2C2 Element	P, C, D JAOC Combat Ops and Plans
SEMA and UAVs (Above Coordinating Altitude)		Corps A2C2 Element G2 Corps FSE	BCD A2C2 Element	P, C, D JAOC Combat Ops and Plans
ADA Locations and Status (HIMAD)		Corps A2C2 Element ADA BDE	BCD A2C2 Element	P, C
ADA Weapons Control Status	Requests	Corps A2C2 Element G3	BCD A2C2 Element	P, C, A
	Approvals	CRC	BCD A2C2 Element	D Corps A2C2 Element
Army ADA Priorities		Corps A2C2 Element G3	BCD A2C2 Element	C, D JAOC Combat Ops

Table B-2. BCD Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
AD Warnings		CRC Corps A2C2 Element	BCD A2C2 Element	C, D Corps A2C2 Element ADA BDE JAOC Defensive Duty Officer
ADA Weapon Engagement Zones and Weapons Coverage		CRC JAOC Plans ADA Brigade	BCD A2C2 Element	P, C, D Corps A2C2 Element
Significant Planned Indirect Fires		Corps FSE Corps A2C2 Element	BCD A2C2 Element	P, C
Fire Support Coordinating Measures		Corps FSE Corps A2C2 Element	BCD A2C2 Element	C
Locations and Status	Army Articles	Corps A2C2 Element Corps AVN Units	BCD A2C2 Element	P, C, D JAOC
	NAVAIDs	Corps A2C2 Element ATS Group and BN	BCD A2C2 Element	P, C, D JAOC
	AIC	Corps A2C2 Element ATS Group and BN	BCD A2C2 Element	P, C, D JAOC
SAAFRs		Corps A2C2 Element	BCD A2C2 Element	P, C, A (if above coordinating altitude)
A—Approval ATS—air traffic service AVN—aviation BDE—brigade BN—battalion C—Coordination D—Distribution ECM—electronic countermeasures NAVAID—navigational aid NBC—nuclear, biological, and chemical Ops—operations P—Planning SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft *Action/output assumes each A2C2 element section passes information it obtains to its parent unit.				

CORPS A2C2 ELEMENT

B-9. The corps A2C2 element has staff responsibility for A2C2 in the corps area. The corps A2C2 element staff function requires information provided from the sources listed in Table B-3. The staff elements using this information are shown by duty position.

Table B-3. Corps A2C2 Element Lateral Information Networking

Information Items	G3 Air	Corps Aviation Officer	Corps ADA Liaison Officer	Air Traffic Service Liaison Officer	Fire Support Coordinator	Air Liaison Officer
OPORD or OPLAN (Includes A2C2 Annex)	X	X	X	X	X	X
ATO and ACO	X	X	X	X	X	
Airspace Control Issuing Times	X	X	X	X	X	X
Airspace User Priorities	X	X	X	X	X	
A2C2 Restrictions and Control Measures (Current and Requested)	X	X	X	X	X	X
Army AD Priorities	X	X	X			
AD Warnings		X	X	X	X	X
AD Weapons Control Status (Current and Requested)	X	X	X	X		X

Table B-3. Corps A2C2 Element Lateral Information Networking (continued)

Information Items	G3 Air	Corps Aviation Officer	Corps ADA Liaison Officer	Air Traffic Service Liaison Officer	Fire Support Coordinator	Air Liaison Officer
Friendly ADA Locations and Coverage	X	X	X	X		X
ADA Weapon Engagement Zones		X	X	X		
FARPs		X		X		X
Location and Status of Airfields (Includes FARPs)	X	X		X		
Field Artillery Locations	X	X		X	X	X
Fire Support Coordinating Measures	X	X		X	X	
Significant Planned and Ongoing Fires (Assumes No Fires in Rear Areas)	X	X		X	X	
Army Aviation Airspace Requirements (Includes SEMA)	X	X	X			
Army Aviation Unit Locations (Company and Larger)	X	X		X		
Aviation Battle Positions		X	X		X	X
Massed Enemy Aircraft Locations			X			
IFF and SIF Procedures		X	X	X		
SAAFRs		X	X	X	X	
UAV Flight Paths and Routes		X		X	X	
UAV Launch Sites		X		X	X	
Flight Obstructions		X		X		
Sortie Allocation	X				X	
FLOT		X	X	X	X	
Positions of Instrument Landing Systems		X		X		
Location and Status of NAVAIDs		X		X		
Intelligence Summaries	X	X	X		X	X
Air Support Requests and Requirements (Includes SEMA and UAV)		X	X	X	X	
Air Support Requests and Requirements (Includes Air Force Only)					X	
NBC Contaminated Areas		X		X		
Unscheduled, Large Formation Missions				X		
Airborne Tactical Formations		X		X		
Friendly ECM Activities		X		X		
Location of AIC				X		X
NBC Reports		X		X	X	
Weather Reports	X	X		X		X
ECM—electronic countermeasures FARP—forward arming and refueling point NAVAID—navigational aid NBC—nuclear, biological, and chemical SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft						

B-10. Table B-4 depicts corps A2C2 element information requirements:

- Where information from outside the corps A2C2 element originates.
- Who the primary corps A2C2 element action officer is.
- Where the information is sent when going outside the corps A2C2 element.
- What the information is used for.

Table B-4. Corps A2C2 Element Vertical Information Networking

Information Required		Received From	Action Officer	Action/Output
OPORD or OPLAN (Includes A2C2 Annex)	Corps	G3	G3 Air	P, C, D BCD
	Division	G3	G3 Air	P, C, A
A2C2 Control Measures and Restrictions	Requests	Corps G3, DIV A2C2 Element	G3 Air	P, C, A, D BCD
	Approvals	BCD A2C2 Element	G3 Air	P, C, D DIV A2C2 Element
FLOT		G3	G3 Air	P, D BCD
A2C2 Priorities	Army	G3	G3 Air	P, C, D BCD DIV A2C2 Element
	Air Forces	BCD A2C2 Element	G3 Air	P, C, D DIV A2C2 Element
ATO and ACO		BCD ASOC	G3 Air	P, C DIV A2C2 Element
ATO Issuing Times		BCD	G3 Air	P, C, D
IFF and SIF Procedures		BCD A2C2 element	G3 Air	P, D DIV A2C2 Element
Unscheduled, Large Formation Missions		BCD ASOC	G3 Air	D DIV A2C2 Element
NBC Contaminated Areas		Corps NBC Element	G3 Air	P, C, D DIV A2C2 Element All A2C2 Element Sections
Air Support Requirements and Requests	Army Aviation Attack	G3 Corps AVN Units DIV A2C2 Element	AVN LNO	P, C, D DIV A2C2 Element
	Airlift	G4/G3 Corps AVN Units DIV A2C2 Element	AVN LNO	P, C, D DIV A2C2 Element
	SEMA	G2/G3 Corps AVN Units DIV A2C2 Element	AVN LNO	P, C, D DIV A2C2 Element
	Air Forces CAS	G3	G3 Air	P, C
	Recon	G2/G3	G3 Air	P, C
	Airlift	G4/G3	G3 Air	P, C
ADA Locations and Coverage		Corps ADA Units DIV A2C2 Element	ADA LNO	P, C, D BCD A2C2 Element
ADA Weapons Control Status	Requests	G3 DIV A2C2 Element	ADA LNO	P, C, D BCD A2C2 Element
	Approvals and Modifications	Corps A2C2 Element	ADA LNO	P, D DIV A2C2 Element

Table B-4. Corps A2C2 Element Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
Army ADA Priorities		G3	ADA LNO	P, D DIV A2C2 Element
AD Warnings		BCD Subordinate Units DIV A2C2 Element	ADA LNO	C, D BCD DIV A2C2 Element
ADA Weapon Engagement Zones and Weapons Coverage		BCD ATO	ADA LNO	P
Significant Planned and Ongoing Indirect Fires		Corps Arty	FSCoord	P, C
Fire Support Coordinating Measures		Corps FSE	FSCoord	P, C, D DIV A2C2 Element BCD
Field Artillery Locations		Corps Arty	FSCoord	P, C, D DIV A2C2 Element
UAV Launch Sites		DIV A2C2 Element	FSCoord	P, C, D DIV A2C2 Element
UAV Flight Routes		DIV A2C2 Element	G3 Air	P, C, A, D DIV A2C2 Element UAV Units
SAAFRs		DIV A2C2 Element Corps AVN	G3 Air	P, C, A, D DIV A2C2 Element BCD (if above coordinating altitude)
Army AVN Unit Locations		Corps AVN Units G3	AVN LNO	P, C, D DIV A2C2 Element
Airborne Tactical Formations		Corps AVN Units G3	AVN LNO	C
Locations and Status	Army Articles	Corps AVN Units G3 DIV A2C2 Element	AVN LNO G3 Air	P, C, D DIV A2C2 Element BCD
	FARPs	Corps AVN DIV A2C2 Element	AVN LNO G3 Air	P, C, D DIV A2C2 Element
	NAVAIDs	ATS BN/CO G3	ATS LNO	P, C, D DIV A2C2 Element BCD
	AIC	ATS BN/CO	ATS LNO	P, C, D DIV A2C2 Element BCD
Flight Obstructions		ATS BN/CO Corps AVN Units DIV A2C2 Element	ATS LNO	P, C, D
Intelligence Summaries		G2	G3 Air	P, C
Friendly ECM Activities		G2	G3 Air	P, C
Massed Enemy Aircraft Formations		G2 ADA Units	G3 Air	P, C, D
A—Approval ASOC—air support operations center Arty—artillery AVN—aviation BN—battalion C—Coordination CAS—close air support CO—company D—Distribution DIV—division ECM—electronic countermeasures FARP—forward arming and refueling point FSCoord—fire support coordinator NAVAID—navigational aid NBC—nuclear, biological, and chemical P—Planning Recon—reconnaissance SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft *Action/output assumes each A2C2 element section passes information it obtains to its parent unit.				

DIVISION A2C2 ELEMENT

B-11. The division A2C2 element has staff responsibility for A2C2 in the division area, requiring information provided from the sources listed in Table B-5. The staff elements using this information are shown by duty position.

Table B-5. Division A2C2 Element Lateral Information Networking

Information Items	G3 Air	Aviation Officer	ADA Liaison Officer	Air Traffic Service Liaison Officer	Fire Support Coordinator	Air Liaison Officer
OPORD or OPLAN (Includes A2C2 Annex)	X	X	X	X	X	X
ATO And ACO	X	X			X	
Airspace Control Issuing Times	X	X	X	X	X	X
Airspace User Priorities	X	X	X	X	X	
A2C2 Restrictions and Control Measures (Current and Requested)	X	X	X	X	X	
Army AD Priorities	X		X			
AD Warnings	X	X	X	X	X	X
AD Weapons Control Status (Current and Requested)	X	X	X	X		X
Friendly ADA Locations and Coverages	X	X	X	X		X
ADA Weapon Engagement Zones	X			X		X
FARPs		X	X	X		X
Location and Status of Airfields (Includes FARPs)	X	X				
Field Artillery Locations	X			X	X	X
Fire Support Coordinating Measures	X	X		X	X	X
Significant Planned and Ongoing Fires (Assumes No Fires in Rear Areas)	X	X		X	X	X
Army Aviation Airspace Requirements (Includes SEMA)	X	X	X			
Army Aviation Unit Locations (Company and Larger)	X	X		X		X
Aviation Battle Positions	X					
Massed Enemy Aircraft Locations	X					
IFF and SIF Procedures		X	X	X		X
SAAFRs	X	X	X	X	X	X
UAV Flight Paths and Routes		X		X	X	
UAV Launch Sites		X		X	X	
Flight Obstructions		X		X		
Sortie Allocation	X				X	X
FLOT	X	X	X	X	X	X
Positions of Instrument Landing Systems		X				
Locations and Status of NAVAIDs		X		X		
Intelligence Summaries	X					
Air Support Requests and Requirements (Includes SEMA and UAV)	X	X			X	

Table B-5. Division A2C2 Element Lateral Information Networking (continued)

Information Items	G3 Air	Aviation Officer	ADA Liaison Officer	Air Traffic Service Liaison Officer	Fire Support Coordinator	Air Liaison Officer
Air Support Requests and Requirements (Includes Air Force Only)	X			X		X
NBC Contaminated Areas	X	X		X		
Unscheduled, Large Formation Missions	X					
Airborne Tactical Formations		X		X		
Friendly ECM Activities		X		X		
Location of AIC Logistic Resupply Requests		X		X		
ECM—electronic countermeasures FARP—forward arming and refueling point NAVAID—navigational aid NBC—nuclear, biological, and chemical SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft						

B-12. Table B-6 depicts division A2C2 element information requirements:

- Where the information is transmitted when going outside the division A2C2 element.
- Where information from outside the division A2C2 element originates.
- What the information is used for.
- Who the primary division A2C2 element action officer is.

Table B-6. Division A2C2 Element Vertical Information Networking

Information Required		Received From	Action Officer	Action/Output
OPORD or OPLAN (Includes A2C2 Annex)	Corps	G3	G3 Air	P, C
	Division	G3	G3 Air	P, C, D Corps A2C2 Element
	Brigade	G3	G3 Air	P, C, A
A2C2 Control Measures and Restrictions	Requests	G3 BDE S3	G3 Air	P, C, A, D Corps A2C2 Element
	Approvals	Corps A2C2 Element	G3 Air	P, C, D BDE S3 Air
	Directed (current)	Corps A2C2 Element	G3 Air	P, C, D BDE S3 Air
FLOT		G3	G3 Air	P, D Corps A2C2 Element
A2C2 Priorities	Army	Corps A2C2 Annex G3	G3 Air	P, C, D Corps A2C2 Element BDE S3 Air
	Air Forces	Corps A2C2 Annex	G3 Air	P, C
Sortie Allocation		ASOC G3 Air	G3 Air	P, C, D BDE S3 Air
IFF and SIF Procedures		Corps A2C2 Element	G3 Air	P, D
Unscheduled, Large Formation Missions		Corps A2C2 Element G3	G3 Air	C, D
NBC Contaminated Areas		Corps A2C2 Element DIV NBC Element	G3 Air	P, C, D BDE S3 Air

Table B-6. Division A2C2 Element Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
Air Support Requirements and Requests	Army Aviation Attack	G3 DIV AVN Units BDE S3 Air	AVN LNO	P, C, D S3 Air
	Airlift	G4/G3 DIV AVN Units BDE S3 Air	AVN LNO	P, C, D S3 Air
	SEMA	G2/G3 DIV AVN Units BDE S3 Air	AVN LNO	P, C, D S3 Air
	Air Forces CAS	G3 S3 Air	G3 Air	P, C, D Corps A2C2 Element
	Recon	G3/G2	G3 Air	P, C, D Corps A2C2 Element
	Airlift	G4/G3	G3 Air	C, D Corps A2C2 Element
ADA Locations and Coverage		DIV ADA Corps ADA Corps A2C2 Element	ADA LNO	P, C Division Aviation Brigade
ADA Weapons Control Status	Requests	G3 BDE S3 S3 Air	ADA LNO	P, C, D Corps A2C2 Element
	Approvals and Modifications	Corps A2C2 Element		P, D BDE S3 Air
Army ADA Priorities		G3 Corps A2C2 Element	ADA LNO	P, C, D S3 Air
AD Warnings		Corps A2C2 Element Subordinate Units	ADA LNO	C, D Corps A2C2 Element S3 Air
Significant Planned and Ongoing Indirect Fires		DIV Arty	FSCoord	P, C, D DIV A2C2 Element
Fire Support Coordinating Measures		Corps A2C2 Element DIV Arty	FSCoord	P, C, D Corps A2C2 Element BDE FSO
Field Artillery Locations		DIV Arty	FSCoord	P, C, D Corps A2C2 Element
UAV Launch Sites		UAV Units	FSCoord	P, C, D Corps A2C2 Element
UAV Flight Routes		N/A	G3 Air	P, C, D Corps A2C2 Element
SAAFRs		DIV AVN	G3 Air	P, C, A, D Corps A2C2 Element S3 Air
Army AVN Unit Locations		DIV AVN Units Corps A2C2 Element	AVN LNO	P, C, D Corps A2C2 Element
Airborne Tactical Formations		DIV AVN Units Corps A2C2 Element S3 Air	AVN LNO	P, C, D Corps A2C2 Element S3 Air
AVN Battle Positions		DIV AVN Units Corps A2C2 Element BDE S3	AVN LNO	P, C, D Corps A2C2 Element

Table B-6. Division A2C2 Element Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
Locations and Status	Army Airfields	Corps A2C2 Element G3 DIV AVN Units	AVN LNO G3 Air	P, C, D Corps A2C2 Element
	FARPs	DIV AVN Units S3 Air	AVN LNO G3 Air	P, C, D Corps A2C2 Element
	AIC	ATS CO/Platoon Corps A2C2 Element	ATS LNO	P, C, D Corps A2C2 Element
Flight Obstructions		DIV AVN Units S3 Air ATS CO/Platoon	ATS LNO	P, C, D Corps A2C2 Element
Intelligence Summaries		G2	G3 Air	P, C, D S3 Air Corps A2C2 Element
Friendly ECM Activities		G2	G3 Air	P, C, D Corps A2C2 Element S3 Air
Massed Enemy Aircraft Formations		G2 Corps A2C2 Element ADA Units	G3 Air	P, C, D Corps A2C2 Element S3 Air
A—Approval Arty—artillery AVN—aviation BDE—brigade C—Coordination CAS—close air support *Action/output assumes each A2C2 element section passes information it obtains to its parent unit.		CO—company D—Distribution DIV—division ECM—electronic countermeasures FARP—forward arming and refueling point FSCOORD—fire support coordinator	N/A—not applicable NBC—nuclear, biological, and chemical P—Planning Recon—reconnaissance SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft	

BRIGADE A2C2 ELEMENT

B-13. The brigade staff performs A2C2 at brigade. Since no formalized A2C2 element exists at brigade, the brigade staff extracts information from various sources to perform A2C2. The brigade commander may form a brigade A2C2 element from the ADA liaison officer (LNO), the brigade fire support officer (FSO), the air liaison officer (ALO), and the Army aviation LNO. When the Army aviation LNO is not present, the S3 air assumes his duties. When present, the Army aviation LNO performs these functions to coordinate with the brigade staff:

- Reviews the airspace utilization and Army aviation plans and graphics from the division operation order (OPORD) or operation plan (OPLAN); advises the brigade commander and staff on actions required at the brigade to follow or to implement the required A2C2 measures.
- Receives the division aviation battalion OPORD or OPLAN; advises the brigade commander and staff on Army aviation support in the brigade area.
- Receives the brigade OPLAN or OPORD; advises on Army aviation annex when necessary; assists in planning operations requiring Army aviation support.

B-14. A2C2 priorities are established and coordination is accomplished on the brigade staff as—

- Division A2C2 priorities are received from the division A2C2 element for implementing at the brigade.

- Significant planned indirect fires are received from the FSO and sent to aviation unit operations. The staff sends significant indirect fires that are immediate to the airspace information center (AIC) either directly or via the division A2C2 element.
- Requests for brigade A2C2 priorities are received from the brigade S3 air and forwarded to the division A2C2 element for approval.
- Field artillery locations are received from the FSO and sent to aviation unit operations.
- Fire support coordinating measures are received from the FSO and sent to aviation unit operations.
- The ADA weapons control status is received from the ADA LNO and sent to aviation unit operations.
- A2C2 restrictions received from the division A2C2 element are passed to the FSO, S3 air, ALO, and ADA LNO for fire support planning. A2C2 restrictions originating at brigade to facilitate fire support planning are sent to aviation unit operations and the division A2C2 element.
- FLOT information is received from the brigade S3 and sent to aviation unit operations.
- AD warnings are received from the ADA LNO and sent to aviation unit operations.
- Requests for Air Force air support are received from the S3 air. Once requests are approved and scheduled, the staff sends information to aviation unit operations.
- Requests for Army aviation support are received from the S3 air and sent to the division A2C2 element and supporting aviation unit.

B-15. The brigade staff function requires information provided from the sources listed in Table B-7. The staff elements using this information are shown by duty position.

Table B-7. Brigade Staff Lateral Information Networking

Information Items	ADA Liaison Officer	Army Aviation Officer	Fire Support Officer	Air Liaison Officer	S3 Air
OPORD or OPLAN (Includes A2C2 Annex)	X	X	X	X	X
ATO and ACO	X	X	X	X	X
Airspace Control Issuing Times				X	X
Airspace User Priorities					X
A2C2 Restrictions and Control Measures (Current and Requested)	X	X		X	X
Army AD Priorities	X			X	X
AD Warnings	X			X	X
AD Weapons Control Status (Current and Requested)	X	X		X	X
Friendly ADA Locations and Coverage	X	X		X	X
ADA Weapon Engagement Zones	X			X	X
FARPs		X			X
Locations and Status of Airfields (Includes FARPs)	X	X		X	X
Field Artillery Locations		X	X	X	X

Table B-7. Brigade Staff Lateral Information Networking (continued)

Information Items	ADA Liaison Officer	Army Aviation Officer	Fire Support Officer	Air Liaison Officer	S3 Air
Fire Support Coordinating Measures	X	X	X	X	X
Significant Planned and Ongoing Fires (Assumes No Fires in Rear Areas)		X	X	X	X
Army Aviation Airspace Requirements (Includes SEMA)		X		X	
Army Aviation Unit Locations (Company and Larger)		X			X
Aviation Battle Positions		X	X		X
Massed Enemy Aircraft Locations					X
IFF and SIF Procedures	X	X		X	
SAAFRs	X	X	X		
UAV Flight Paths and Routes		X	X		
UAV Launch Sites		X	X		
Flight Obstructions		X			X
Sortie Allocation					X
FLOT	X	X	X	X	X
Positions of Instrument Landing Systems		X		X	
Locations and Status of NAVAIDs		X		X	
Intelligence Summaries					X
Air Support Requests and Requirements (Includes SEMA and UAV)	X	X	X	X	X
Air Support Requests and Requirements (Includes Air Force Only)	X		X		X
NBC Contaminated Areas		X			X
Unscheduled, Large Formation Missions					X
Airborne Tactical Formations	X				X
Friendly ECM Activities		X			X
Location of AIC		X		X	
ECM—electronic countermeasures FARP—forward arming and refueling point NAVAID—navigational aid NBC—nuclear, biological, and chemical SAAFR—standard Army aircraft flight route SEMA—special electronic mission aircraft					

B-16. Table B-8 depicts the brigade staff information requirements:

- Where information from outside the brigade originates.
- Who the primary brigade action officer is.
- Where the information is transmitted when going outside the brigade staff.
- What the information is used for.

Table B-8. Brigade Staff Vertical Information Networking

Information Required	Received From	Action Officer	Action/Output
OPORD or OPLAN (Includes A2C2 Annex)	Division	G3	S3 Air
	Brigade	S3	S3 Air
	Battalion	S3	S3 Air

Table B-8. Brigade Staff Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
A2C2 Control Measures and Restrictions	Requests	S3 BN S3	S3 Air	P, C, A, D DIV A2C2 Element
	Approvals	DIV A2C2 Element	S3 Air	P, C, D BN S3
	Directed (Current)	DIV A2C2 Element	S3 Air	P, C, D BN S3
FLOT		S3	S3 Air	C, D DIV A2C2 Element
A2C2 Priorities	Army	S3 DIV A2C2 Annex	S3 Air	P, C, D BN S3
	Air Forces (if affects BDE)	DIV A2C2 Annex	S3 Air	P
Sortie Allocation		G3 Air	S3 Air	P, C, D BN S3 Air
Unscheduled, Large Formation Missions		DIV A2C2 Element G3 Air	S3 Air	C, D
NBC Contaminated Areas		DIV A2C2 Element BDE NBC Officer	S3 Air	P, C, D DIV A2C2 Element
Air Support Requirements and Requests	Army Aviation Attack	S3	S3 Air/AVN LNO	P, C, D BN S3 Air DIV A2C2 Element
	Airlift	S3/S4	S3 Air/AVN LNO	P, C, D DIV A2C2 Element
	SEMA	S2/S3	S3 Air	P, C, D DIV A2C2 Element
	Air Forces CAS	S3	S3 Air ALO	P, C, D BN S3 Air DIV A2C2 Element
	Recon	S3/S2	S3 Air ALO	P, C, D BN S3 Air DIV A2C2 Element
	Airlift	S3/S4	S3 Air ALO	P, C, D DIV A2C2 Element
Airspace Control Issuing Times		DIV A2C2 Element	S3 Air	P
ADA Locations and Coverage		ADA BN/Battery	ADA LNO	P, C
ADA Weapons Control Status	Requests	S3	ADA LNO	C, D DIV A2C2 Element
	Approvals and Modifications	DIV A2C2 Element	ADA LNO	P, D BN S3 Air
AD Warnings		DIV A2C2 Element Subordinate Units	ADA LNO	C, D DIV A2C2 Element BN S3 Air
Significant Planned and Ongoing Indirect Fires		DIV Arty DS Arty	FSO	P, C, D DIV A2C2 Element
Fire Support Coordinating Measures		DIV Arty DS Arty	FSO	P, C, D S3 Air
Field Artillery Locations		DIV Arty DS Arty	FSO	P, C, D DIV A2C2 Element

Table B-8. Brigade Staff Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
UAV Launch Sites		UAV Units	FSO	P, C, D DIV A2C2 Element
UAV Flight Routes		DIV A2C2 Element	S3 Air	P, C
Army AVN Unit Locations		DIV A2C2 Element AVN Units	S3 Air AVN LNO	P, C, D DIV A2C2 Element
Airborne Tactical Formations		AVN Units S3	S3 Air AVN LNO	C
FARPs		DIV A2C2 Element AVN Unit	S3 Air AVN LNO	P, C, D DIV A2C2 Element
AVN Battle Positions		AVN Unit	S3 Air AVN LNO	P, C, D DIV A2C2 Element
Intelligence Summaries		S2	S3 Air	P, C
Friendly ECM Activities		S2 DIV A2C2 Element	S3 Air	P, C
Massed Enemy Aircraft Formations		DIV A2C2 Element ADA Units	S3 Air	C
A—Approval Arty—artillery AVN—aviation BDE—brigade BN—battalion C—Coordination CAS—close air support D—Distribution DIV—division DS—direct support ECM—electronic countermeasures FARP—forward arming and refueling point NBC—nuclear, biological, and chemical P—Planning Recon—reconnaissance SEMA—special electronic mission aircraft *Action/output assumes each A2C2 element section passes information it obtains to its parent unit.				

BATTALION A2C2 ELEMENT

B-17. As with the brigade staff, no formal A2C2 element exists at battalion. The commander is the airspace manager and his staff performs the coordination. The information requirements by duty position are the same from brigade to battalion with one exception. The S3 or S3 air generates the ADA and aviation information if either the ADA or aviation LNO is not present.

B-18. Table B-9 depicts the battalion staff information requirements:

- Where information from outside the battalion originates.
- Who the primary battalion action officer is.
- Where the information is transmitted when going outside the battalion staff.
- What the information is used for.

Table B-9. Battalion Staff Vertical Information Networking

Information Required		Received From	Action Officer	Action/Output
OPORD or OPLAN (Includes A2C2 Annex)	Brigade	S3	S3 Air	P, C
	Battalion	S3	S3 Air	P, C
A2C2 Control Measures and Restrictions	Current	S3 Air	S3 Air	P, C
	Required	N/A	S3 Air	P, C, D BDE S3 Air

Table B-9. Battalion Staff Vertical Information Networking (continued)

Information Required		Received From	Action Officer	Action/Output
FLOT		S3	S3 Air	P, C
A2C2 Priorities (Army Only)		S3 BDE S3 Air	S3 Air	P, C
AD Warnings		BDE S3 Air	S3 Air	C
Sortie Allocation		BDE S3 Air	S3 Air	P
Air Support Requirements and Requests	Army Aviation Attack	Subordinate Units S3	S3 Air	C, D BDE S3 Air
	Airlift	S4/S3	S3 Air	C, D BDE S3 Air
	SEMA	S2/S3	S3 Air	C, D BDE S3 Air
	Air Forces CAS	S3	S3 Air ALO	C, D BDE S3 Air
	Recon	S2/S3	S3 Air ALO	C, D BDE S3 Air
	Airlift	S4/S3	S3 Air	C, D BDE S3 Air
Unscheduled, Large Formation Missions		BDE S3 Air	S3 Air	C
ADA Locations		ADA Unit	S3	C
ADA Weapons Control Status		S3	S3	C, D BDE
Significant Planned and Ongoing Indirect Fires		DIV Arty	FSO	C, D BDE S3 Air
Fire Support Coordinating Measures		DIV Arty DS Arty	FSO	C
Field Artillery Locations		DS Arty	FSO	C
Army AVN Locations and Coverage		AVN Units	S3 Air	C, D BDE S3 Air
AVN Battle Positions		AVN Units	S3 Air	C, D BDE S3 Air
A—Approval C—Coordination DS—direct support SEMA—special electronic mission aircraft Arty—artillery CAS—close air support N/A—not applicable AVN—aviation D—Distribution P—Planning BDE—brigade DIV—division Recon—reconnaissance				
*Action/output assumes each A2C2 element section passes information it obtains to its parent unit.				